

CONSERVATION IN A CHANGING WORLD

Sarah Staniforth - *Historic Properties Director - National Trust*

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Historic Properties – covers advice on archaeology, buildings, collections, gardens and parks and security. The range of properties goes from beach, to countryside estates, woodland parks, gardens, houses etc. There are:

*900 km of coastline
300 pay-for-entry houses and gardens
149 registered museums
5000 staff
55,000 volunteers
3.7 million members*

*50,000 built structures
213 mansions
78 mills
57 villages
47 pubs and inns
28 castles
25 medieval barns
12 lighthouses
400 bridges*

There is a big project to re-roof Castle Drogo following 12 years of exhaustive research. Phase 1 has proved successful and the main work is now about to start.

There is a continuous battle going on against deterioration of the buildings.

“The National Trust shall be established for the purpose of promoting the permanent preservation for the benefit of the nation of lands and tenements including buildings of beauty and historic interest” (1907)

“Conservation is the careful management of change. It is about revealing and sharing the significance of places and ensuring that their special qualities are protected, enhanced, understood and enjoyed by present and future generations”.

Archaeology:

Examples are:

Corfe Castle – part of what was in its time one of the greatest gifts to the NT – includes, Studland Bay, miles of coastline and also Kingston Lacey etc.

Avebury

Chedworth Roman Villa – extraordinary example of the survival of uncovered mosaics (uncovered in the 1850s).

Building:

The New Inn at Stowe – bought by the NT about 3 years ago. Originated as an inn, then became a farm which it was until purchase. It was becoming more and more derelict having been lived in by an old man who was unable to maintain it. A major grant was obtained for it.

“Conservation in action” allows visitors to see what is happening – e.g. on the roof at Tyntesfield etc.

Collections – conservations and Collections etc:

The work is enshrined in the **National Trust Manual of Housekeeping** – lavishly illustrated. Has now sold over 10,000 copies at £50.00 a copy! It is also a recognised work in the United States and is on the bookshelves of all small museums there.

Gardens and Parks

Hidcot, Powys Castle, Stour Head

Fire:

Uppark – fire on 30th August 1989

The Fleece Inn, Bretforton – 27th February 2004

The most important thing is to ensure that a problem never starts.

Security

The break in at Kedleston Hall on Sunday 2nd May 2010. Five pieces of silver were taken – the burglars were disturbed by the House Manager arriving in his car after hearing the alarm. They had been using a battering ram – it is impossible to prevent that sort of thing happening.

CHALLENGES:

Stonehenge – A303 and visitor centre

Airport expansion – Heathrow, Stanstead

High Speed Train – part of the route goes through Hartwell House and the Wadstone Estate

Future of farming

Windfarms

Development and green spaces

Plant diseases – Phytophthora (seriously affecting the rhododendrons in Cornish gardens)

Economic downturn

Climate change:

The weather is badly affecting National Trust properties at the moment in a way that it never was more than 20 years ago.



IMPACTS –

Warmer temperatures – has caused:

Algal bloom to grow, for example, in the Stourhead Lake.
The only remedy is to put barley straw bales in the water.

More pests to be present in the gardens.

More pests, too, in the houses – e.g. Carpet Beetle, Clothes Moths etc. The appearance of Termites is not an impossible scenario.

Drought – the east of England suffers most. Sheringham in Norfolk has particularly suffered. The peat moors dry out and then torrential rain following this causes deep erosion with gullies being formed.
Coastal erosion – e.g. at Birling Gap and south of Bangor in North Wales.

More Severe Storms – St Michael's Mount is regularly inundated now - because of increasingly intense weather.

The hurricane in South East England – Chartwell on 16th October 1987.

Then, on 19th January 1990, the intense storm caused great damage in the gardens of Kingston Lacy.

Floods – Westbury Gardens was inundated with salt water (which killed all the plants). Therefore a decision has to be taken in the next few years as to whether to do a different type of gardening there.

Flash floods occurred at:

Boscastle (16th August 2004)

Blickling (2001, 2004, 2007, 2008)

Calke Abbey (2007)

The Vyne (2007)

Coughton Court (2007)

Cragside (2007)

Lake District (2009)

Boscastle – 200 cars were washed into the harbour as well as all the other devastation.

The repair has only just been completed.

Blickling in Norfolk floods almost every time there are thunder storms. The water runs straight off the surrounding intensively farmed land and fills the dry moat – then flooding the basement rooms which are open to the public.

Calke Abbey – 15th June 2007. Water from a flash flood filled the ground floor and descended into the basement. The enormous gutters also overflowed at the same time and the water came through the ceilings of all the second floor rooms. The sodden carpets had to be dried out in the indoor riding school. It was a one in a 150 year flood. However not even one month later on 20th July 2007

the Vyne in Hampshire was flooded as was **Cragside**.

Big lessons have been learned about what is safe to keep in basements – i.e. not electrical items etc.

On the same day, 20th July 2007, in Warwickshire, **Coughton Court** in Warwickshire was surrounded by water – which got in underneath the house and then came out.

5th September 2008 was a one in 400 year flood – this affected Cragside incredibly – much swept away in the garden and in the Billiard Room water came down the chimney and the room was flooded to a depth of an inch.

9th November 2009 the grandmother of all floods occurred - a one in 1000 year flood. Over a foot of rain fell on the fells above Cockermouth and **Wordsworth House** was inundated. The water was up to the ceiling of the National Trust Shop at Wordsworth House. The flood water was contaminated with sewage so this caused big issues as far as sanitising the house after the devastation was concerned. The flood water was within an inch of the raised ground floor so the show rooms were not as affected as they might have been. Everything important is now moved onto the first floor.

What can we do to make buildings and surrounding land more resilient in adverse weather conditions?

Much has to be redesigned to ensure that water can get out more quickly. Gutters and downpipes are being augmented with spouts. English Heritage has given permission for these changes to Grade I listed buildings because they are essential to their preservation.

Adaptation - short to medium term

- *Ensure drainage in land around buildings is maintained – culverts and ditches etc. Ensure that flood plains are not built upon, etc.*
- *Ensure building maintenance standards are high – resilient to wind and rain*
- *Ensure emergency plans are in place*
- *Ensure preventative conservation and housekeeping standards are high*
- *Monitor and control environment and light*
- *Implement integrated pest management*

Mitigation

Reduce emissions of green house gases:

REDUCE ENERGY USE

- *the “Big Switch” (low energy bulbs). All ordinary incandescent bulbs have been replaced now*
- *Conservation heating*
- *Dehumidification*

REDUCE CARBON FOOTPRINT

- *Reduce use of fossil fuels*
- *Change to condensing boilers*
- *Consider use of combined heat and power systems*
(On Penrose estate they use their own wood fuel – it is chipped for use in a wood chip boiler)
- *Improve energy efficiency*
- *Install ground source heat pumps*
- *Use Thermafleece in loft spaces – a natural insulation material made out of sheep’s wool*

GENERATE ENERGY ON SITE

- *Restore historic energy generation – water and wind turbines*
- *Solar thermal energy generation - heating*
- *Install Photovoltaic Cells (PV) on roofs – to generate electricity.*
(Dunster Castle is the first Grade I building where PV slates have been installed).

The National Trust has a target to increase its 1% usage of Renewables in 2008 to 50% by 2020.

They believe this target to be realistic and achievable.

There is much on the internet about “National Trust and Climate Change” – a Google search using the phrase in inverted commas will reveal it.